

PATENT APPLN. NO. 10/516,621
RESPONSE UNDER 37 C.F.R. §1.111

**PATENT
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REMARKS

Claims 1-5 are rejected in the Action under 35 U.S.C. § 102(e) as being anticipated by Ashihara et al., U.S. Patent No. 6,277,912 (hereinafter: "Ashihara"). Claims 6-11 are rejected under 35 U.S.C. 103(a) as being obvious over Ashihara in view of Verardi et al., U.S. Patent No. 5,863,646 (hereinafter: "Verardi").

Claim 1 has been amended to recite that the aqueous resin dispersion composition of the present invention is prepared without the use of an emulsifier by dissolving in an ethereal solvent an acid-modified chlorinated polyolefin that has been modified by at least one member selected from the group consisting of maleic acid, itaconic acid, citraconic acid, and acid anhydrides thereof; adding a basic substance to the acid-modified chlorinated polyolefin to neutralize; adding a dispersion medium consisting of water to disperse the neutralized acid-modified chlorinated polyolefin therein; and removing the ethereal solvent.

Support for the limitation that the aqueous resin dispersion composition of the present invention is prepared without the use of an emulsifier is found in the specification, inter alia, on page 2, lines 14-16, and Examples 1 and 2. Support for the product-by-process limitations added to claim 1 is found in original claim 6.

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Claim 6 has been amended to recite that in the process of the present invention, the aqueous resin dispersion composition is produced without the use of an emulsifier by the sequence of steps of, in order: dissolving an acid-modified chlorinated polyolefin in an ethereal solvent; adding a basic substance to the acid-modified chlorinated polyolefin to neutralize; adding a dispersion medium consisting of water to disperse the neutralized acid-modified chlorinated polyolefin therein; and removing the ethereal solvent.

The claims as amended are patentably distinct over the resin composition disclosed in Ashihara and over the process disclosed in Ashihara as modified by Verardi.

In Example 1 of Ashihara, water and surfactants are added simultaneously as an aqueous surfactant solution in the process disclosed therein. In Verardi also, the aqueous solutions contain a surfactant (Example 2). However, the use of emulsifiers during production of conventional aqueous resin compositions poses problems in that the foaming of resin compositions occurs during concentration carried out by evaporating organic solvents and the like, thereby prolonging the production process, and emulsifiers remaining in films formed from resin compositions impair the water resistance of the films (page 1, line 25 to page 2, line 7, of the present specification). The present invention is free from such

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disadvantages since no emulsifiers are used (Examples 1 and 2 and Table 1).

The recitation "without the use of an emulsifier", although appearing in the preamble of claims 1 and 6, operates to exclude emulsifiers from the scope of the composition and process of the present invention. The recitation is a limitation because it is necessary to give life, meaning, and vitality to the claims and helps to determine the scope of the claims..

The United States Court of Appeals for the Federal Circuit has stated that:

In general, a preamble limits the invention if it recites essential structure or steps, or if it is "necessary to give life, meaning, and vitality" to the claim. *Pitney Bowes*, 182 F.3d at 1305. Conversely, a preamble is not limiting "where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention." *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997).

Catalina Mktg. Int'l v. Coolsavings.com, Inc., 62 USPQ2d 1781, 1784 (2002) (quoting *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 51 USPQ2d 1161 (Fed. Cir. 1999)).

Also:

"[I]f the preamble helps to determine the scope of the patent claim, then it is construed as part of the claimed invention."

NTP, Inc. v. Research In Motion, Ltd., 73 USPQ2d 1231 (2004).

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The Office also states in the Action that the difference between the method of preparing the aqueous resin dispersion composition disclosed by Ashihara and that claimed by the applicants is that the process step sequences are different ... the selection of any order of performing process step is *prima facie* obvious in the absence of new or unexpected results (page 4, first paragraph, of the Action).

In Example 1 of Ashihara, an acid-modified chlorinated polyolefin is dissolved in toluene; water and surfactants are added to the solution; and the acid-modified chlorinated polyolefin is then neutralized. An acid-modified chlorinated polyolefin dissolved in toluene that has not been neutralized does not disperse in water without a surfactant. Similarly, when an acid-modified chlorinated polyolefin is dissolved in an ethereal solvent, this solution, if not neutralized, does not disperse in water without a surfactant. That is, when a surfactant is not used, an acid-modified chlorinated polyolefin dissolved in an ethereal solvent does not sufficiently disperse in water if the acid-modified chlorinated polyolefin solution has not first been neutralized. In the present invention, an acid-modified chlorinated polyolefin is dissolved in an ethereal solvent and then neutralized. The acid-modified chlorinated polyolefin is then

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dispersed by adding only water without using a surfactant. Hence, contrary to the assertion in the Action, the sequence of neutralization and water addition in the process of the present invention in which no surfactants are used is critical.

Applicants also note for the record that when an acid-modified chlorinated polyolefin is dissolved in toluene, it does not sufficiently disperse in water that does not contain a surfactant even after neutralization because toluene is essentially water-immiscible.

The compositions of Ashihara contain a surfactant that is excluded from the composition of the present invention. Thus, Ashihara cannot support a case of anticipation under 35 U.S.C. § 102(e) of claims 1-5 of the present application and is insufficient, alone or with Verardi, to support a case of prima facie obviousness under 35 U.S.C. § 103(a) of the process recited in claims 6-10 of the present application.

Removal of the 35 U.S.C. § 102(e) and 103(a) rejections of the claims is in order and is respectfully requested.

The foregoing is believed to be a complete and proper response to the Office Action dated August 9, 2005, and is believed to place this application in condition for allowance. If, however, minor issues remain that can be resolved by means of a telephone

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interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number indicated below.

In the event that this paper is not considered to be timely filed, applicants hereby petition for an appropriate extension of time. The fee for any such extension may be charged to our Deposit Account No. 111833.

In the event any additional fees are required, please also charge our Deposit Account No. 111833.

Respectfully submitted,

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